

Operating Instructions AV Control Receiver

Model No. **SA-XR55**

Dear customer

Thank you for purchasing this product.
Before connecting, operating or adjusting this product, please read the instructions completely.
Please keep this manual for future reference.



As an ENERGY STAR® Partner*, Panasonic has determined that this product meets the ENERGY STAR® guidelines for energy efficiency.

*For Canada only: The word "Participant" is used in place of the word "Partner"

If you have any questions contact

In the U.S.A.: 1-800-211-PANA(7262)
In Canada: 905-624-5505

For U.S.A. only

The warranty can be found on page 26.

For Canada only

The warranty can be found on page 27.

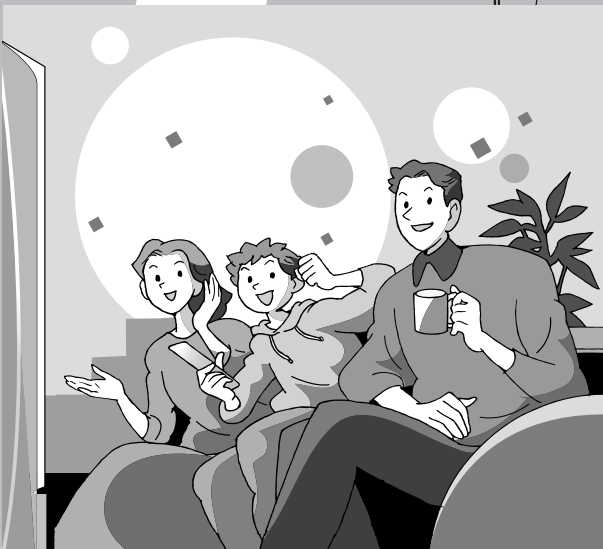


Table of contents

Before use	
IMPORTANT SAFETY INSTRUCTIONS	2
How to set up the Home Theater	3
Listening caution	3
Supplied accessories	3
Home Theater connections	
1. TV and DVD player	4
• Basic connection	4
• High picture quality connection	5
• DVD ANALOG 6CH connection	5
2. Speakers	6
• Bi-wiring connection	8
• Using speaker terminal B	8
3. AC power supply cord	8
Other connections	
• DVD recorder	9
• VCR	9
• Cable box or satellite receiver etc.	10
• CD player	10
• Tape deck	10
• Game player etc.	10
• Antennas	11
The remote control	11
Receiver settings – Basic	12
Settings – Test	13
Basic operations	
Playback	14
Using Surround effects	15
Operations	
Control guide	16
Sound quality/Sound field/Convenient functions	18
Making a recording	20
Receiver settings – Advanced	21
The radio	22
Remote control mode	24
Multi control menus and factory settings	24
Reference	
Specifications	25
Product Service	25
Warranty (U.S.A.)	26
Warranty (Canada)	27
Maintenance	27
Troubleshooting guide	Back cover

Before use

Connections

Settings


Basic Operations

Operations

Reference

IMPORTANT SAFETY INSTRUCTIONS

Read these operating instructions carefully before using the unit. Follow the safety instructions on the unit and the applicable safety instructions listed below. Keep these operating instructions handy for future reference.

- 1) Read these instructions.
- 2) Keep these instructions.
- 3) Heed all warnings.
- 4) Follow all instructions.
- 5) Do not use this apparatus near water.
- 6) Clean only with dry cloth.
- 7) Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- 8) Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 9) Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- 10) Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- 11) Only use attachments/accessories specified by the manufacturer.
- 12) Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over. 
- 13) Unplug this apparatus during lightning storms or when unused for long periods of time.
- 14) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE SCREWS. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING:

TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK OR PRODUCT DAMAGE, DO NOT EXPOSE THIS APPARATUS TO RAIN, MOISTURE, DRIPPING OR SPLASHING AND THAT NO OBJECTS FILLED WITH LIQUIDS, SUCH AS VASES, SHALL BE PLACED ON THE APPARATUS.

THE FOLLOWING APPLIES ONLY IN THE U.S.A.

CAUTION:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

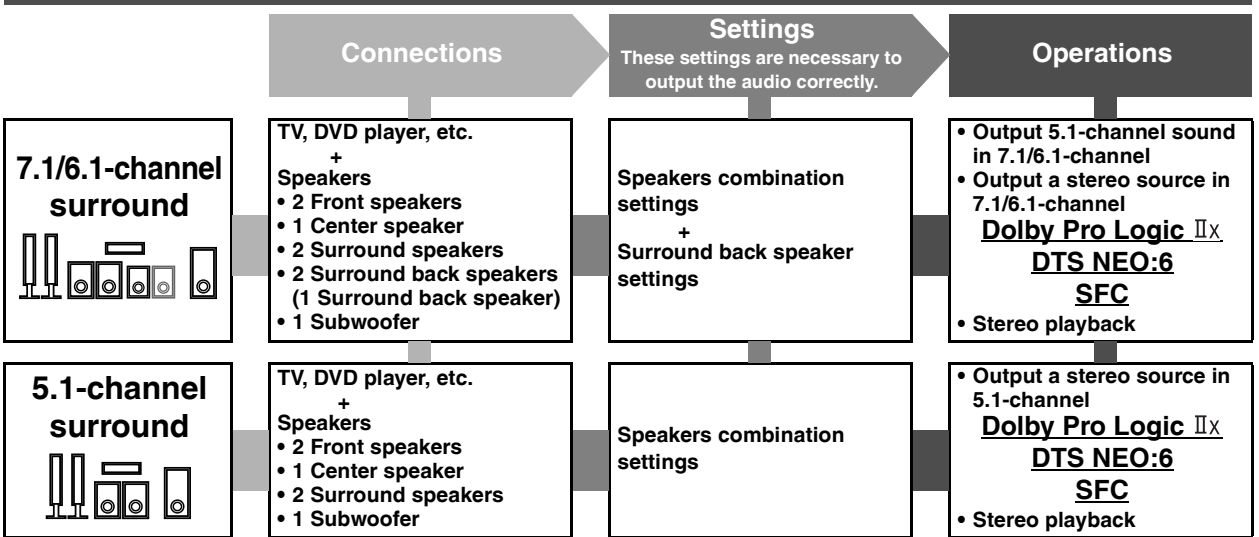
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Any unauthorized changes or modifications to this equipment would void the user's authority to operate this device.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

The socket outlet shall be installed near the equipment and easily accessible or the mains plug or an appliance coupler shall remain readily operable.

How to set up the Home Theater



You can create your desired environment by connecting other peripheral equipment.

Listen to your television or CDs in surround sound



Turn on.



- Select Dolby Pro Logic IIx, DTS NEO:6 or SFC to listen to stereo sound from your television or CDs in surround. (Sound is output from all the speakers.)
- Depending on the speaker settings and input signal (audio signal from the disc being played), this may not be possible. (→page 17)

Listening caution



Selecting fine audio equipment such as the unit you've just purchased is only the start of your musical enjoyment. Now it's time to consider how you can maximize the fun and excitement your equipment offers. This manufacturer and the Electronic Industries Association's Consumer Electronics Group want you to get the most out of your equipment by playing it at a safe level. One that lets the sound come through loud and clear without annoying blaring or distortion-and, most importantly, without affecting your sensitive hearing.

We recommend that you avoid prolonged exposure to excessive noise.

Sound can be deceiving. Over time your hearing "comfort level" adapts to higher volumes of sound. So what sounds "normal" can actually be loud and harmful to your hearing.

Guard against this by setting your equipment at a safe level BEFORE your hearing adapts.

To establish a safe level:

- Start your volume control at a low setting.
- Slowly increase the sound until you can hear it comfortably and clearly, and without distortion.

Once you have established a comfortable sound level:

- Set the dial and leave it there.

Taking a minute to do this now will help to prevent hearing damage or loss in the future. After all, we want you listening for a lifetime.

Supplied accessories



Please check and identify the supplied accessories.

<input type="checkbox"/> 1 AC power supply cord (K2CB2CB00018)	<input type="checkbox"/> 1 FM indoor antenna (RSA0006-L)
<input type="checkbox"/> 1 AM loop antenna (RSA00037)	<input type="checkbox"/> 2 Batteries
<input type="checkbox"/> 1 Remote control (EUR7722KM0)	Refer to the separate booklet, "Remote Control Operation Guide", for remote control operation details.

Use the numbers indicated in parentheses when asking for replacement parts. (As of March 2005)

In the U.S.A. to order accessories, refer to "Accessory Purchases" on page 26.

In Canada to order accessories, call the dealer from whom you have made your purchase.



Home Theater connections – 1. TV and DVD player

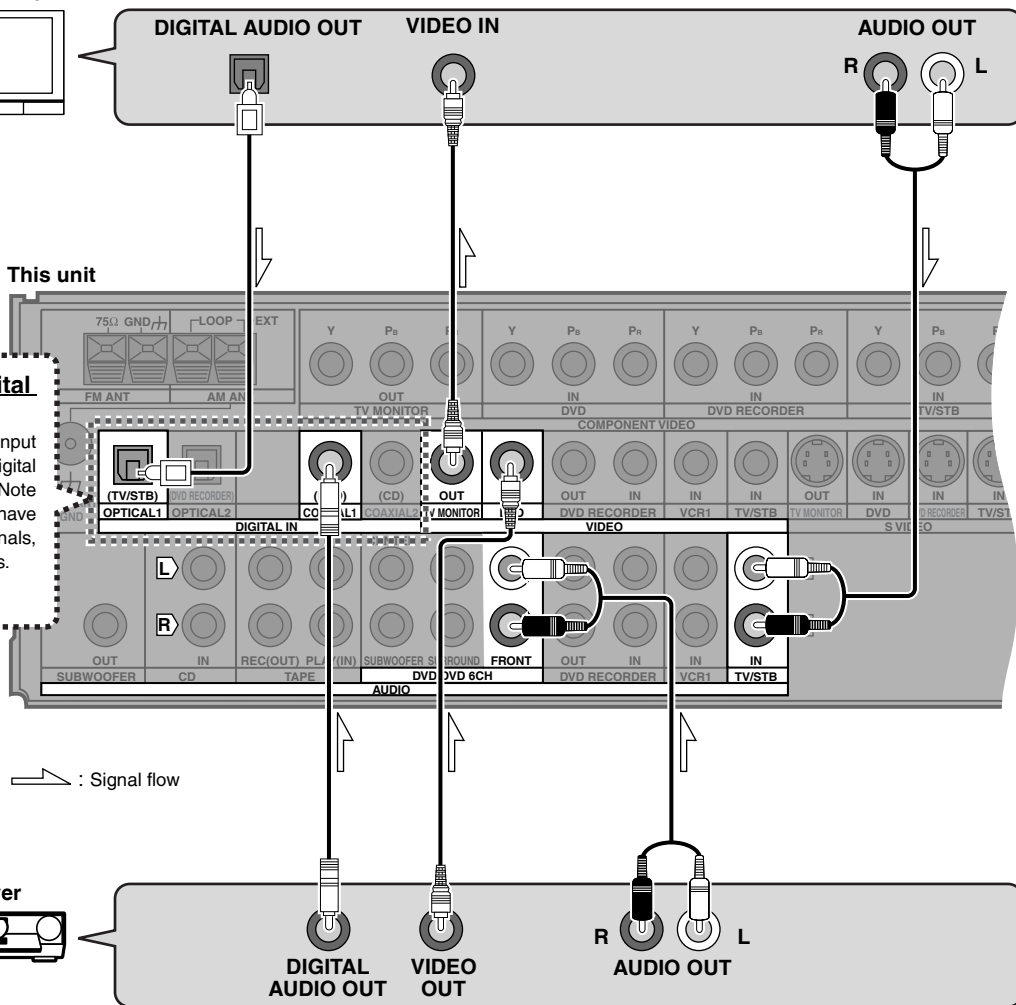
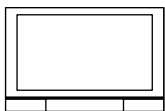
Basic connection

Preparation: Turn off all components before making any connections.

Connection cable (All cables are sold separately)	
Audio cable	Video cable
Stereo connection cable White (L) Red (R) You can enjoy analog sound.	Video connection cable Use to connect to the TV MONITOR terminals for a standard picture.
Coaxial cable You can enjoy digital sound such as Dolby Digital, DTS and PCM.	
Optical fiber cable Do not sharply bend the optical fiber cable.	

- Use an analog connection to enjoy sources that cannot be decoded on this unit and to record analog sources.

TV or monitor



Changing the digital input settings

You can change the input settings for the digital terminals if necessary. Note the equipment you have connected to the terminals, then change the settings. (page 13)

CAUTION!

DO NOT INSTALL OR PLACE THIS UNIT IN A BOOKCASE, BUILT-IN CABINET OR IN ANOTHER CONFINED SPACE. ENSURE THE UNIT IS WELL VENTILATED. TO PREVENT RISK OF ELECTRIC SHOCK OR FIRE HAZARD DUE TO OVERHEATING, ENSURE THAT CURTAINS AND ANY OTHER MATERIALS DO NOT OBSTRUCT THE VENTILATION VENTS.

CAUTION!

Do not place anything on top of this unit or block the heat radiation vents in any way. In particular, do not place tape decks or CD/DVD players on this unit as heat radiated from it can damage your software.

Before use

Connections

Settings

Basic Operations



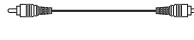


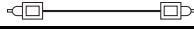
Operations

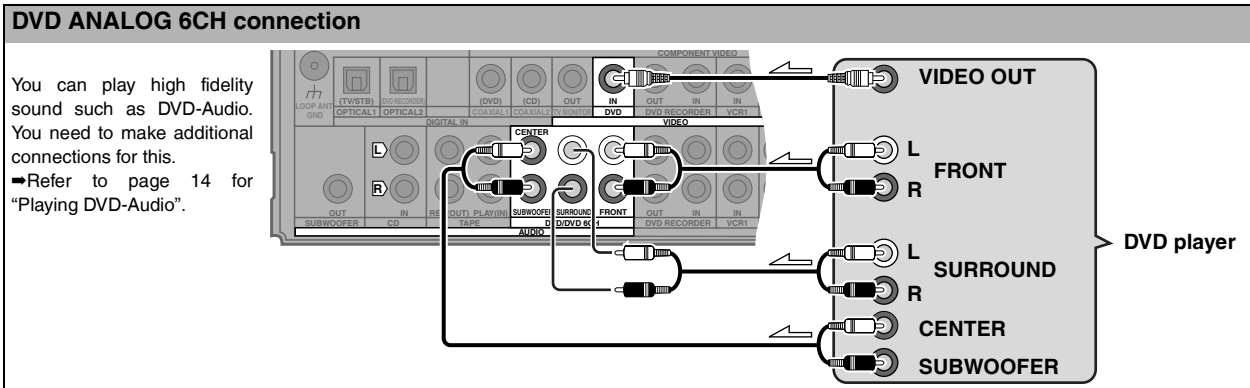
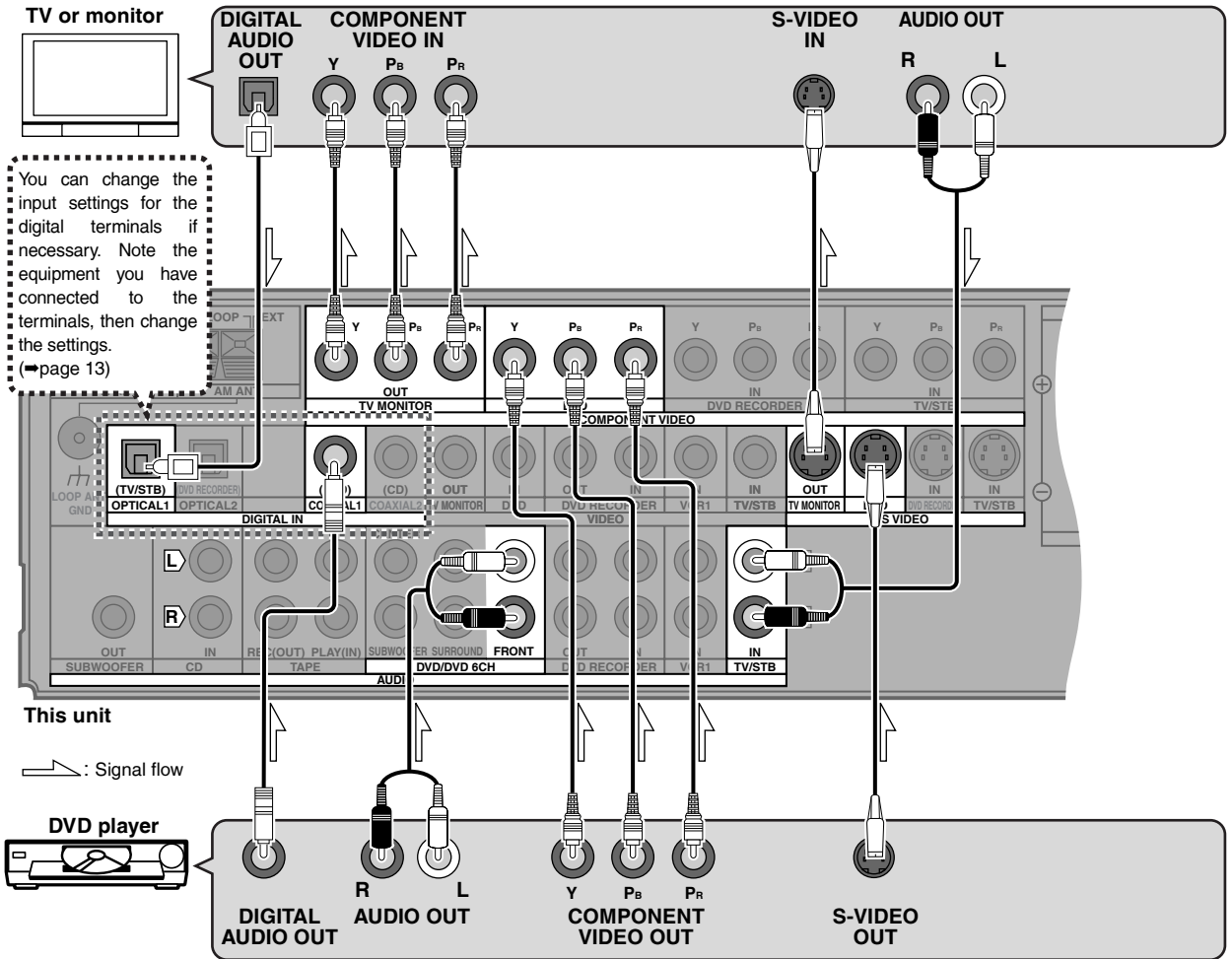
Reference

High picture quality connection

Use this connection instead of the VIDEO IN/VIDEO OUT connections on page 4. A COMPONENT VIDEO connection provides a purer picture than a S-VIDEO connection. Select a S-VIDEO or COMPONENT VIDEO connection to match the peripheral equipment. Video input can only be output again through the same type of terminal.

Preparation: Turn off all components before making any connections.

Connection cable (All cables are sold separately)	
Audio cable	Video cable
Stereo connection cable White (L)  Red (R)  You can enjoy analog sound.	Video connection cable  Use to connect to the TV MONITOR terminals for a standard picture. Can also be used to make a COMPONENT VIDEO connection for a higher quality picture than an S-VIDEO connection.
Coaxial cable  You can enjoy digital sound such as Dolby Digital, DTS and PCM.	S-VIDEO connection cable  You can enjoy a higher quality picture than with a video connection cable.
Optical fiber cable  Do not sharply bend the optical fiber cable.	



Before use
Connections
Settings
Basic Operations
Operations
Reference



Home Theater connections – 2. Speakers

Before use

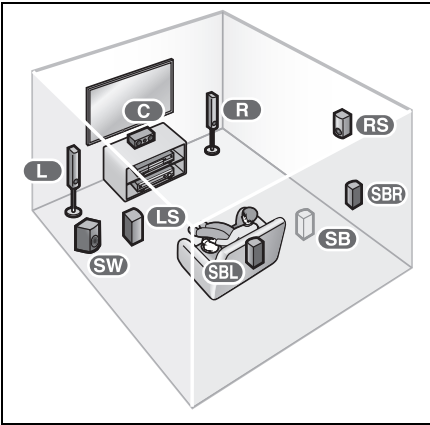
Connections

Settings

Basic Operations

Operations

Reference



L R Front speakers (L: left/R: right)

Place on the left and right of the TV at seated ear height so that there is good coherency between the picture and sound.

C Center speaker

Place underneath or above the center of the TV. Aim the speaker at the seating area.

LS RS Surround speakers (LS: left/RS: right)

Place on the side of or slightly behind the seating area, about one meter (3 feet) higher than ear level.

SBL SBR (SB) Surround back speakers (SBL: left/SBR: right)

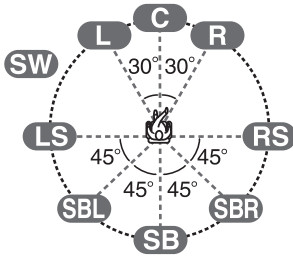
Place behind the seating area, about one meter (3 feet) higher than ear level.

SBL/SBR: Two surround back speakers.

SB: One surround back speaker.

SW Subwoofer

The subwoofer can be placed in any position as long as it is at a reasonable distance from the TV.



- The front, center, surround, and surround back speakers should be placed at approximately the same distance from the seating position.
- The angles in the diagram are approximate.
- Set the distance of the speakers from the seating position if you cannot place them at the same distances. (→page 21)
- Speaker settings and placement should suit the number of speakers. (→page 12)

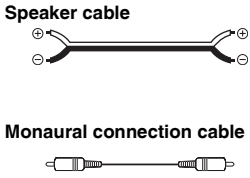
■ Placement of speakers

The number of speakers	Speakers	Placement
7	2 Front speakers (Left/Right), 1 Center speaker, 2 Surround speakers (Left/Right), 2 Surround back speakers (Left/Right)	
6	2 Front speakers (Left/Right), 1 Center speaker, 2 Surround speakers (Left/Right), 1 Surround back speaker	
	2 Front speakers (Left/Right), 2 Surround speakers (Left/Right), 2 Surround back speakers (Left/Right)	
5	2 Front speakers (Left/Right), 2 Surround speakers (Left/Right), 1 Surround back speaker	
	2 Front speakers (Left/Right), 1 Center speaker, 2 Surround speakers (Left/Right)	
4	2 Front speakers (Left/Right), 2 Surround speakers (Left/Right)	
3	2 Front speakers (Left/Right), 1 Center speaker	
2	2 Front speakers (Left/Right)	

Peripheral equipment sold separately unless otherwise indicated.
To connect equipment, refer to the appropriate operating instructions.

Preparation: Turn off all components before making any connections.

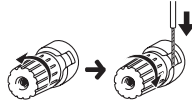
Speaker cable (All cables are sold separately)



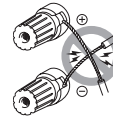
Twist the wire



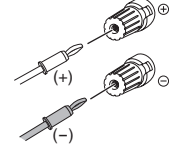
Speaker terminals



Do not short-circuit



If using 4-mm plugs

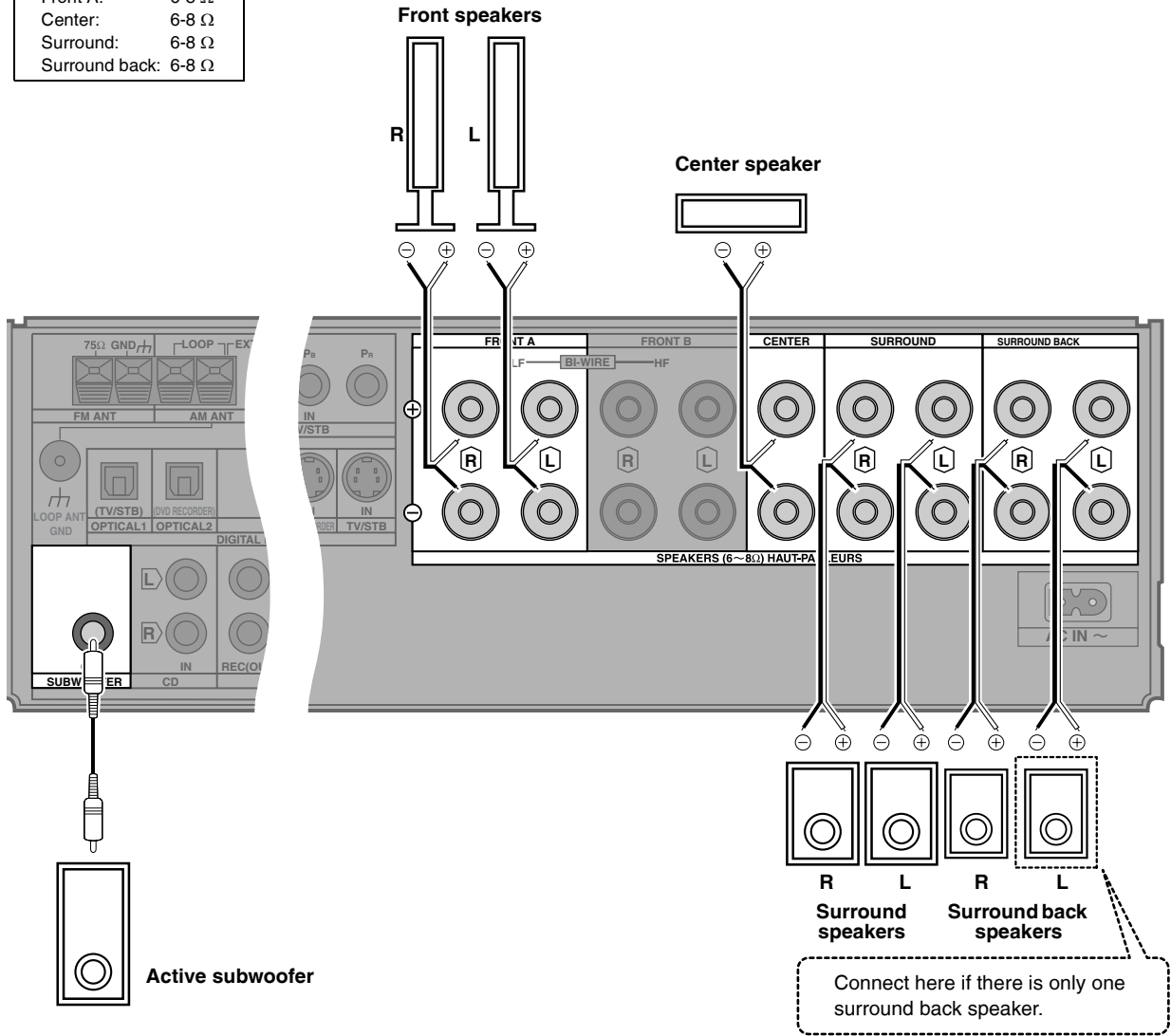


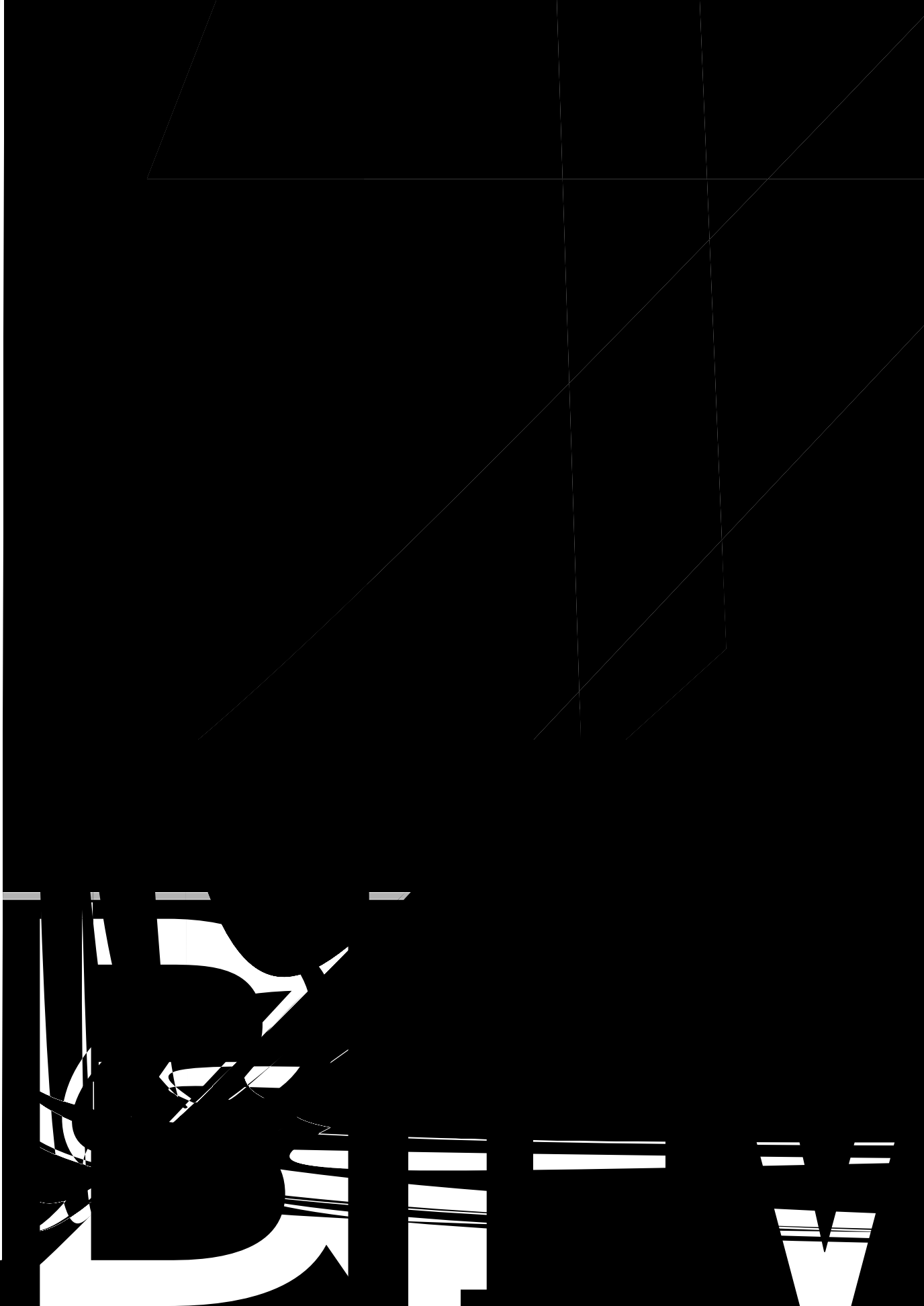
Fully tighten the terminal, then insert.

Connect the cables so "L", "R", "+" and "-" are correct.

Speaker impedance:

- Front A: 6-8 Ω
- Center: 6-8 Ω
- Surround: 6-8 Ω
- Surround back: 6-8 Ω

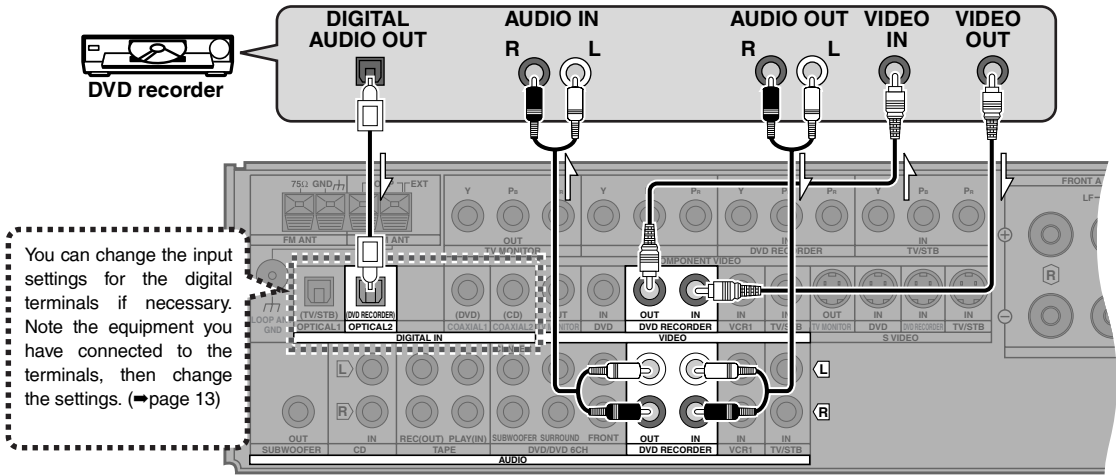




Other connections

Peripheral equipment sold separately unless otherwise indicated.
To connect equipment, refer to the appropriate operating instructions.

DVD recorder

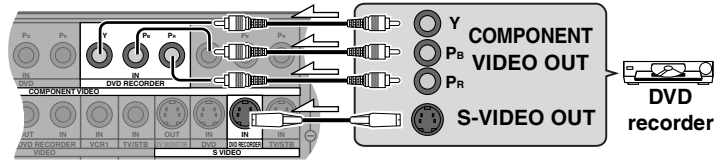


High picture quality connection

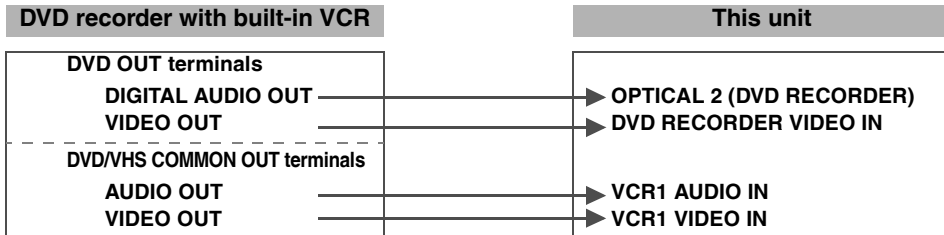
Use this connection instead of the VIDEO IN/VIDEO OUT connections (→above). A COMPONENT VIDEO connection provides a purer picture than a S-VIDEO connection.

Select a S-VIDEO or COMPONENT VIDEO connection to match the peripheral equipment.

Video input can only be output again through the same type of terminal.



Connection to a DVD recorder with built-in VCR



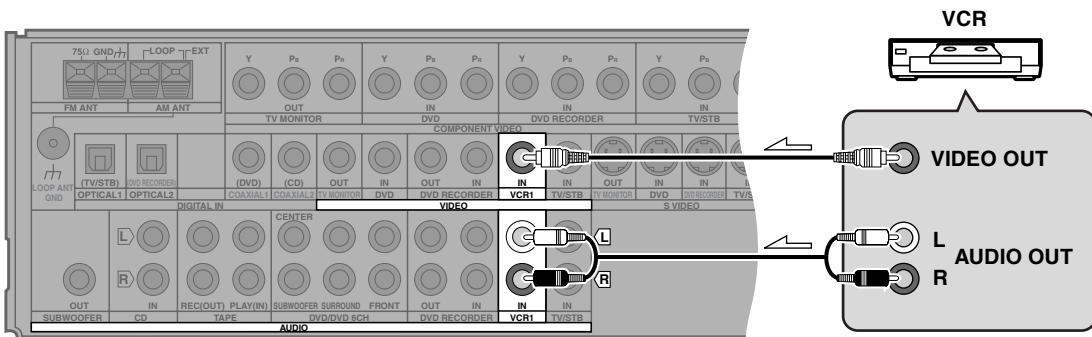
→Refer to page 14 for "Using a DVD recorder with built-in VCR".

Connection to equipment with DVD analog 5.1CH OUT terminals

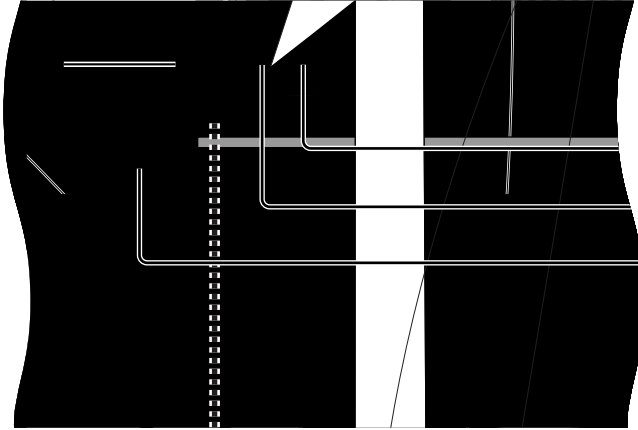
Connect as shown in "DVD ANALOG 6CH connection" (→page 5), replacing the DVD player with a DVD recorder.

→Refer to page 14 for "Playing DVD-Audio".

VCR (Playback only)



Before use
Connections
Settings
Basic Operations
Operations
Reference



The remote control

Batteries

- Insert so the poles (+ and –) match those in the remote control.
- Do not use rechargeable type batteries.

Use

Aim at the sensor, avoiding obstacles, at a maximum range of 7m (23 feet) directly in front of the unit.

- Keep the transmission window and the unit's sensor free from dust.
- Operation can be affected by strong light sources, such as direct sunlight, and the glass doors on cabinets.

This is displayed in the
"Speakers control" menu.
Select this to set

Settings remain as set even if the power is turned off.
For more information on settings refer to "Receiver settings –
page 21.
control menus and factory settings".

Settings – Test

Check that sound is output from the connected speakers.

- Adjust so output level from each speaker is balanced with the output level from the front speakers.

L: Front left C: Center R: Front right
 RS: Surround right LS: Surround left
 SBL: Surround back left SBR: Surround back right
 SB: Surround back (If you connect one surround back speaker)
 SW: Subwoofer

1 Turn SPEAKERS A on.



–When using a BI-WIRE connection–



- If you select SPEAKERS B only, the test signal will not be output.

2 Check the test signal output.

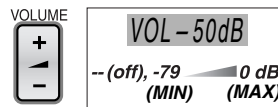
A test signal is output from one speaker at a time for two seconds in the following order.



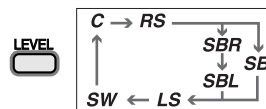
- Speakers set as “-” (not connected) in “Speakers combination settings” (page 12) are skipped.

If there is no output from a connected speaker, Stop the test signal (step 6) and check the connections (pages 6 to 8) and settings (page 12, left) again.

3 Adjust the main volume.



4 Select the speaker channel.



5 Adjust the level.

- Adjust center, surround and surround back output to the same apparent level as the front speakers.

C, RS, SBR, SBL, (SB), LS: -10 (MIN) +10 dB (MAX) Factory settings: 0 dB
 SW: MIN, 1 19, MAX Factory setting: 10

- Approximately two seconds after adjusting the level, a test signal is again output from each speaker in order.

Repeat steps 4 and 5 to adjust the level of each speaker.

6 Stop the test signal.



Changing the digital input terminals

Change these settings to suit the connections you have made to the optical (OPT) and coaxial (COAX) digital input terminals. (pages 4, 5, 9 and 10)

You can only allocate one piece of equipment per terminal.

2 Select “D-INPUT” (DIGITAL INPUT) and press [ENTER].

3 Select the input position and press [ENTER].

TV/STB,
DVR, DVD,
CD

4 Change the setting and press [ENTER].

Repeat steps 3 and 4 to set other input positions.

OPT 1,
OPT 2,
COAX 1,
COAX 2

5 → Select another setting

Press [MULTI CONTROL, CANCEL] several times to return to step 2 in the operations across and select another setting.

→ Finish setting

Press [MULTI CONTROL, CANCEL] several times to select “EXIT” and press [ENTER].

Input signal settings

This unit automatically detects whether input is digital or analog, but you can fix the input mode. Select “AUTO” when it is not necessary to fix the signal.

2 Select “IN MODE” (INPUT MODE) and press [ENTER].

3 Select the input position and press [ENTER].

TV/STB,
DVR, DVD,
CD

4 Change the setting and press [ENTER].

AUTO: Automatically detects the input signal and plays. (In “AUTO”, the unit distinguishes the digital signals then the analog signals.)

ANALOG: Fixes the input signal to analog and plays.

DIGITAL: Fixes the input signal to digital and plays.

PCM FIX: Fixes the input signal to PCM and plays.

Repeat steps 3 and 4 to set other input positions.

5 → Select another setting

Press [MULTI CONTROL, CANCEL] several times to return to step 2 in the operations across and select another setting.

→ Finish setting

Press [MULTI CONTROL, CANCEL] several times to select “EXIT” and press [ENTER].

Note regarding PCM FIX mode

In rare cases, the unit may have trouble recognizing the digital signals on discs. With the PCM signals on CDs, this may cause the beginning of a track to be cut off. Engage the PCM FIX mode if this occurs.

When PCM FIX mode is on, the unit cannot process other signals. This may cause noise to be output. Select another mode in this case.

- This setting is not necessary when playback is normal.
- When an input position is set to PCM FIX, and the input signals are not from a PCM source, “PCM FIX” flashes on the display.

Basic operations

Playback

Before use

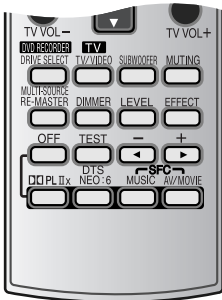
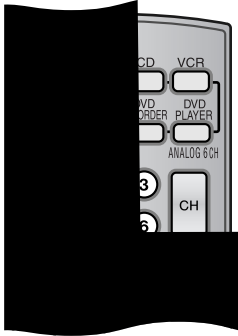
Connections

Settings

Basic Operations

Operations

Reference



■ Playing DVD-Audio

Playing DVD ANALOG 6CH

You can enjoy high quality sound with DVD-Audio.

➔ Refer to page 5 for “DVD ANALOG 6CH connection”.

Preparation:

- Turn SPEAKERS on.
DVD ANALOG 6CH only works when either SPEAKERS A or BI-WIRE is on.
- Set the selector to “DVD”. (➔ above)
- When you connect to a DVD recorder, playback is not possible if “DVR” is selected for input. Select “DVD”.

Press and hold until “DVD 6CH” is displayed.

To cancel, press and hold until “DVD” is displayed.

- Speaker settings (➔ pages 12, 21) are ineffective. Change the settings on the DVD player if necessary.

Enjoying high quality 2-channel sound

You can enjoy high quality stereo sound with 192 kHz 2-channel DVD-Audio.

1. Cancel the “DVD 6CH” setting. (➔ above)
2. Set the input signal to “ANALOG” in “Input signal settings”. (➔ page 13)

■ Using SPEAKERS B

➔ Refer to page 8 for connecting SPEAKERS B.

Sound is output from the speaker connected to the FRONT B terminals on this unit.

To turn off the sound from the speaker connected to the A terminals, press [SPEAKERS A] and cancel .

If you select SPEAKERS B only:

- Playback is in stereo (2-channel).
- When a multi-channel source is played with digital connections, “2CH MIX” is displayed and the sounds intended for all the speakers are played through the front speakers.

When DVD ANALOG 6CH is selected, the sound from the front 2 channels is output. If you select SPEAKERS B only, the following are set automatically irrespective of settings selected in speaker settings (➔ pages 12, 21).

- Speaker size: LARGE
- Subwoofer: NO
(Bass is output from the front speakers.)

■ Using headphones

Press to turn all the speakers off. Reduce the volume and connect the headphones. The sound from the headphones automatically becomes 2CH MIX.

When DVD ANALOG 6CH is selected, the sound from the front 2 channels is output.


Using Surround effects

Adding surround effects.



- This unit does not automatically recognize the Dolby Digital Surround EX signal. The surround back channel is added by using Dolby Pro Logic IIx.
 - Dolby Pro Logic IIx, DTS NEO:6 and SFC modes remain in effect until you change them.
 - You cannot select Dolby Pro Logic IIx, DTS NEO:6 and SFC at the same time.
 - If you make any settings in "Speakers combination settings", "Surround back speaker settings" or "Speaker settings" (→pages 12, 21) when using surround effects, the surround effects are canceled.
- Refer to page 17 for information about limitations on using surround effects.

Using Dolby Pro Logic IIx

Enjoy stereo (2-channel) sources through multiple channels. (If you have not connected surround back speakers, play is in Dolby Pro Logic II (→page 12 "Speakers combination settings").) You can also enjoy Dolby Digital 5.1-channel and DTS 5.1-channel sources in 7.1(6.1)-channel.



Select. 	MOVIE: Use this mode when playing movies.
	MUSIC: Use this mode when playing music.
	GAME: Enjoy games with greater audio impact.


- You can only use "GAME" mode when the input signal is 2-channel stereo.
- When "1 SPKR" is selected in "Surround back speaker settings" (→page 12) and there is a Dolby Digital 5.1-channel, DTS 5.1-channel, or Dolby Digital Surround EX sources–

Select. 	DOLBY EX: Use this mode when playing movies.
	MUSIC: Use this mode when playing music.
To cancel  You can make further adjustments to the effect of "MUSIC" mode. (→page 18)	

Using DTS NEO:6


Use DTS NEO:6 to play 2-channel sources through multi-channels. (If all speakers are set to "LARGE" in "Speaker settings" (→page 21), there is no output from the subwoofer.) You can also enjoy Dolby Digital 5.1-channel and DTS 5.1-channel sources in 6.1-channel.

Select. 	CINEMA: Use this mode when playing movies.
	MUSIC: Use this mode when playing music.
To cancel  You can make further adjustments to the effect of "MUSIC" mode. (→page 18)	

When the digital input  indicator lights with Dolby Digital 2-channel and DTS 2-channel sources, you can only use "CINEMA" mode. When it does not light, you can only use "MUSIC" mode. (→page 16 "Display indicators")

Other playback functions

■ DUAL AMP function

Enjoy a higher quality sound during stereo (2-channel) playback by playing the sound through the amplifiers used for multi-channel sound sources. 


DUAL AMP does not work in the following cases.

- When all the speakers are turned off
- During multi-channel playback
- When you are using Dolby Pro Logic IIx, DTS NEO:6 or SFC (→above)

When the DUAL AMP function does not work, the DUAL AMP lamp goes out.

■ Enjoying BI-AMP sound

(When the front speakers are BI-WIRE compatible)

The BI-AMP function uses separate amplifiers for the high frequency and low frequency sounds to the BI-WIRE speakers during playback. This produces a higher quality sound. 

This function works when using a BI-WIRE connection and input is analog (excluding DVD 6CH) or a 2-channel PCM signal.

- Refer to page 8 for connecting BI-WIRE speakers.
- Select "BI-WIRE" for "Bi-wiring settings". (→page 12)


For your reference


When playing video sources connected to DVD RECORDER.



The picture remains on the screen even if you select "TUNER", "CD" or "TAPE".


Using the Sound Field Control (SFC)

Enjoy an enhanced sound experience with greater presence and spread by using these SFC modes with Dolby Digital, DTS, PCM or analog stereo sources. Choose from the following modes.

Select. 	LIVE:	Imparts the reflection and spread of a large concert hall.
	POP/ROCK:	Best suited for dynamic sound such as pop and rock music.
	VOCAL:	Best suited to enhance vocals.
	JAZZ:	Recreates natural sound ambience and direction.
	DANCE:	Enjoy a dance hall like audio effect.

Select. 	DRAMA:	Best suited for dialogues in drama movies.
	ACTION:	Best suited for action movies with impact.
	SPORTS:	Enjoy a feeling like being at a live sporting event.
	MUSICAL:	Enjoy a feeling like being at a live musical performance.
	GAME:	Enjoy games with greater audio impact.

- After pressing [MUSIC] or [AV/MOVIE], the mode changes even if you press  .

To cancel  You can make further adjustments to these effects. (→page 18)	
---	--

For your reference

Depending on the combination of input source and SFC mode, sound may be distorted. In this case, decrease the SFC speaker level or effect (→page 18). Try another SFC mode (→above).

Digital signals that can be played on this unit

■ Dolby Digital, including Dolby Digital Surround EX

DVD etc.

This is digital surround format developed by Dolby Laboratories. Dolby Digital Surround EX adds a surround back channel to the traditional 5.1-channel format of Dolby Digital. This creates a sound with greater presence.

■ DTS including DTS-ES or DTS 96/24

DVD etc.

This digital surround system was developed by DTS (Digital Theater Systems, Inc.). DTS-ES adds a surround back channel to the traditional 5.1-channel format of DTS. This creates a sound with greater presence. DTS 96/24 provides 96 kHz sound at up to 24 bits. The 96 kHz/24 bit high frequency sounds are played through multiple channels.

■ PCM signal

CD, DVD-Audio etc.

This unit's DIGITAL IN COAXIAL1 terminal can play up to 192 kHz and the other DIGITAL IN terminals can play up to 96 kHz.

■ It cannot decode

- Other digital signals, such as MPEG
- Dolby Digital RF signals from a laser disc player

Control guide

Main unit

[], POWER]

Press to switch the unit from on to standby mode or vice versa. In standby mode, the unit is still consuming a small amount of power.

Standby indicator []

When the unit is connected to the AC mains supply, this indicator lights up in standby mode and goes out when the unit is turned on.

[SPEAKERS, A, B]

For selecting speakers A or B. Turning the speakers off automatically engages the STEREO/2CH MIX mode (when listening through headphones, for example).

[MULTI CONTROL, CANCEL]

Press to enter Multi control or cancel. [ENTER]

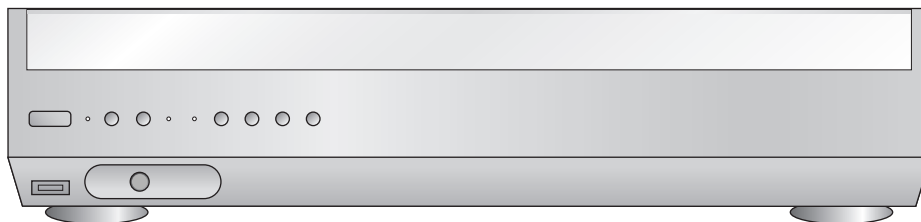
Enters setting in Multi control.

[INPUT SELECTOR]

For selecting input. Selects each setting in Multi control.

[VOLUME]

Volume control.



Remote control signal sensor

[VCR 2]

For a game player, etc.

[DUAL AMP]

Lights when the DUAL AMP function is activated.

[BI-AMP]

Lights when the BI-AMP function is activated.

[BAND]

For switching between FM and AM.

[PRESET]

Press to allow preset station selection with [V TUNE ^].

[V TUNE ^]

For tuning the radio and selecting preset stations. Press and hold until the frequency starts scrolling to start automatic tuning. Tuning stops when a station is found.

[PHONES]

Headphone jack. Plug type: 6.3 mm (1/4") stereo. Avoid listening for prolonged periods of time to prevent hearing damage. Turn the speakers off when using the headphones.

Display indicators

[RE-MASTER]

Lights when the multi-source re-master function is on.

[MULTI CONTROL]

When you press the [MULTI CONTROL, CANCEL] button and enter the settings the indicator lights.

[SLEEP]

Sleep timer indicator.

[TUNED]

A station is tuned.

[ST]

A stereo FM broadcast is tuned.

[MONO]

Lights when using the monaural mode.

[]

Flashes during automatic presetting.

[DIGITAL INPUT]

- The channels contained in the digital input signal light.
- No sound is output from a channel if the speaker is set to “_” (not connected) in “Speakers combination settings” (→page 12) even if the channel indicator lights.

L: Front left channel **C:** Center channel
R: Front right channel **LS:** Surround left channel
SB: Surround back channel **RS:** Surround right channel
S: If the surround channel is monaural
LFE (Low Frequency Effects): Deep-bass effect

[PCM]

Lights when the PCM FIX mode is set.

[– SPEAKERS – , ,]

Speaker indicators.

- A:** Sound is output from speakers connected to the front A, surround, and center terminals.
- B:** Sound is output only from speakers connected to the front B terminals.
- A, B:** Sound is output from speakers connected to the front A, B, surround, and center terminals.
- A, B, BI-WIRE:** Sound is output from speakers connected by Bi-wiring.

General display

Shows the input mode, radio frequency, and other general information.

[2CH MIX]

Lights when playing a multi-channel source in 2CH MIX mode.

[kHz, MHz]

Frequency unit indicators.
kHz: AM, or PCM sampling frequency
MHz: FM

[SOUND MODE]

The following light to indicate the source's input signal (multi-channel digital signal) and the decoding format used. (→below)

SOUND MODE

DIGITAL: Dolby Digital decoder is being used.	PL : Dolby Pro Logic decoder is being used.
DIGITAL EX: Dolby Digital Surround EX decoder (Dolby Pro Logic decoder) is being used when the input signal is Dolby Digital 5.1-channel or Dolby Digital Surround EX.	PL : Dolby Pro Logic decoder is being used.
EX: Dolby Digital Surround EX decoder (Dolby Pro Logic decoder) is being used when the input signal is DTS.	NEO:6: DTS NEO:6 matrix decoder is being used.
DTS-ES: DTS-ES discrete or matrix decoder is being used.	SFC: SFC matrix function is being used.
DTS: DTS decoder is being used.	
DTS 96/24: DTS 96/24 decoder is being used.	
STEREO: 2-channel stereo decoder is being used.	

- DIGITAL EX** and **EX** are displayed only when “1 **SPKR**” is selected in “Surround back speaker settings”. (→page 12)
- PL** is displayed when using Dolby Pro Logic with stereo (2-channel) sources and “**SB**” is set to “_” in “Speakers combination settings”. (→page 12)



level.

[MUTE]

To mute the volume.

[TEST]

To start the test tone.

[LEVEL]

To adjust the volume.

To adjust the volume.

[EFFECT]

To adjust the Logic, DTS, or SFC effects.

To adjust the Logic, DTS, or SFC effects.

To adjust the Logic, DTS, or SFC effects.

First select EFFECT, LEVEL, or SFC, and then press [◀, -] or [▶, +] to complete the setting.

the setting.

Settings

Basic Operations

Operations

ts
n U
ound ef
peak out sign
gs
+
Center
n + Cent

Sound quality/Sound field/Convenient functions

Before use

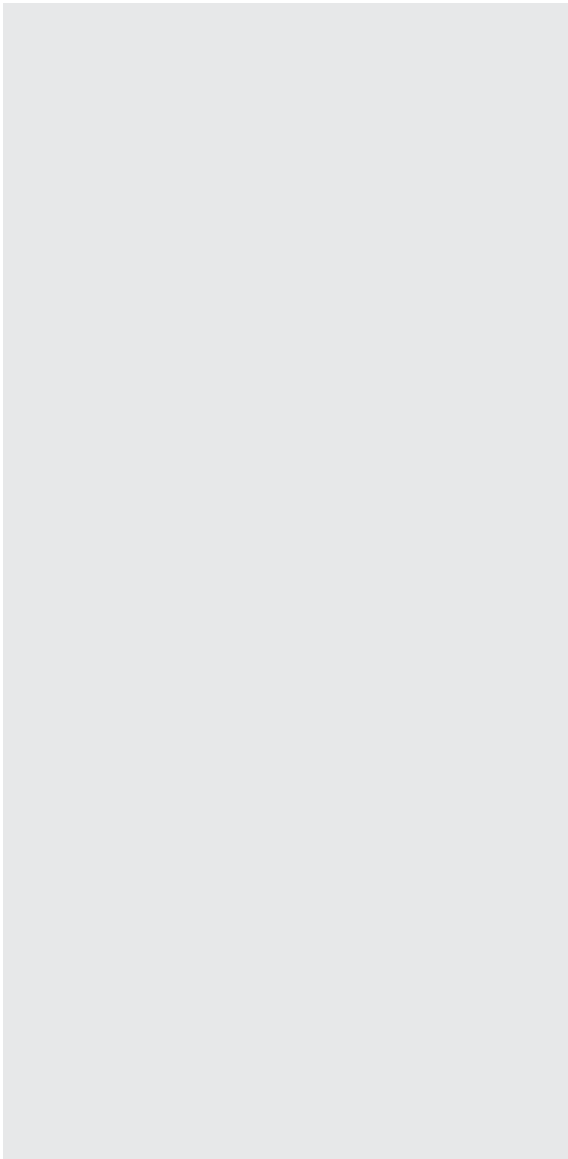
Connections

Settings

Basic Operations

Operations

Reference



➔Refer to page 15 for information about surround effects.

You can adjust the effect of **"MUSIC"** with **"DIMEN"** (Dimension Control), **"C-WIDTH"** (Center Width Control) and **"PANORAMA"**. (Only when the input signal is 2-channel.)

You can adjust the effect of **"MUSIC"** with the center image control.

You can adjust the sound field by adjusting the level of the speakers and effect. These adjustments can be made for each SFC mode.

Basic operations with the MULTI CONTROL	
Turn to change.	Press to enter.
<ul style="list-style-type: none"> ■ To return to the previous setting/To cancel Press. ■ To select another settings Press several times to return to step 2 in the operations across and select another setting. ■ To finish settings Press several times to select "EXIT" and press [ENTER]. 	

➔Page 24 "Multi control menus and factory settings".

Use the MULTI CONTROL menus to change the settings.

(⇒page 18 “Connections with the MULTI CONTROL”)



1 Press the MULTI CONTROL.

Select the settings to change. (⇒below, right)

Adjusting the tone

You can adjust the level of the bass and treble.

2 Select “BASS” and press [ENTER].

3 Select “BASS” or “TREBLE” and press [ENTER].

BASS,
TREBLE

4 Adjust the level and press [ENTER].

5 Select another setting Finish setting

Adjusting the volume balance

You can adjust the balance of the front speakers.

2 Select “BALANCE” and press [ENTER].

3 Adjust the balance and press [ENTER].

4 Select another setting Finish setting

Adjusting the brightness of the display

Dim the display for better viewing in a darkened room.

Choose a level between 1 (bright) and 3 (dim).

2 Select “DIMMER” and press [ENTER].

3 Select “ON” and press [ENTER].

OFF, ON

Select “OFF” to cancel.

4 Select the level and press [ENTER].

LEVEL 1,
LEVEL 2,
LEVEL 3

5 Select another setting Finish setting

When you operate the main unit or remote control, this is temporarily canceled.

Sleep timer

The sleep timer can turn the unit off after a set time.

It does not control any other components.

2 Select “SLEEP” and press [ENTER].

3 Select the time and press [ENTER].

When this is set, “SLEEP” appears on the display.

- To cancel, select “OFF”.

OFF, 30, 60,
90, 120
(in minutes)

4 Select another setting Finish setting

- **To check the setting:**
After setting the time, you can check the remaining time using step 2.
- **To change a setting:**
Repeat the procedure from the beginning.

Sound quality/Sound field/Convenient functions

Before use

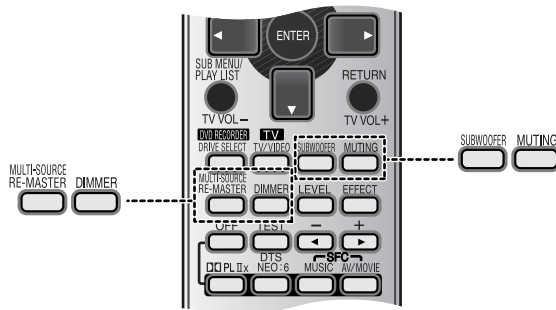
Connections

Settings

Basic Operations

Operations

Reference



Adjusting the subwoofer level
 You can adjust the volume of the subwoofer while listening to a source. Sound can be distorted if you raise the volume while the subwoofer level is high. Reduce the subwoofer level if this occurs.

Select.

SUBWOOFER

--- (off) → MIN → 5

↑ ↓

MAX ← 15 ← 10

- You can make fine settings by pressing [TEST] then adjusting the output level. (→page 13)
 - You cannot adjust the subwoofer level if “DVD ANALOG 6CH” is selected.
 - Select “SW ---” to stop output.
- Factory setting: SW 10**

Muting
 To mute the volume.

Select.

MUTING

- “MUTING IS ON” scrolls on the display while the volume is muted.
 - Muting is canceled when the power is turned off.
- **To cancel: Press again**

Multi-source re-master
 This original feature boosts the frequencies of the higher harmonics that are lost during recording due to compression. You can enjoy a full, more natural sound with this.

Select.

MULTI-SOURCE RE-MASTER

- EFFECT 1: For fast tracks (pop and rock)**
EFFECT 2: For tracks with a variety of tempos (jazz)
EFFECT 3: For slow tracks (classical)
EFFECT 4: For compressed audio signals
OFF: The re-master processing is off (factory setting)

- Dolby Pro Logic IIx, DTS NEO:6 and SFC are canceled when using multi-source re-master.
 - If you make any settings in “Speakers combination settings”, “Surround back speaker settings” or “Speaker settings” (→pages 12, 21) when using multi-source re-master, multi-source re-master is canceled.
- Multi-source re-master cannot be used in the following cases.**
- When input signal is DTS 96/24, PCM with sampling frequencies of 192, 176.4, 96 or 88.2 kHz.

Dimmer
 Dim the display for better viewing in a darkened room.

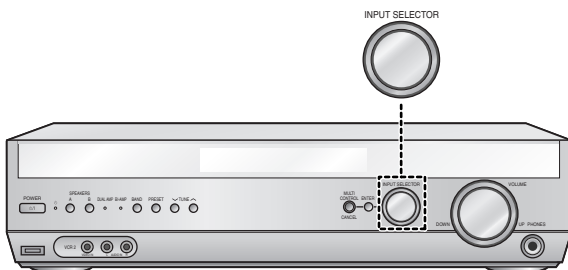
Select.

DIMMER

- **To cancel: Press again**
- Refer to page 19 for adjusting the brightness of the display.

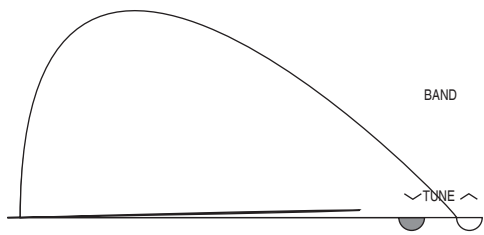
Making a recording

You can record to a tape deck connected to TAPE REC (OUT) or a DVD recorder connected to DVD RECORDER OUT. See the recording unit’s operating instructions for details on how to prepare it for recording.



- 1 Select the source to be recorded.**
- 2 Begin recording.**
Follow your recording unit’s operating instructions.
- 3 Start the source to be recorded.**
Follow your equipment’s operating instructions.

- Note**
- You cannot record a source connected through a digital terminal.
 - When recording from a TV/STB, DVR, CD or DVD ensure the source is connected through the corresponding analog terminals and “ANALOG” input is selected. (→pages 4, 5, 9, 10 and 13)
 - With a tape deck, you can record any analog source except TAPE.
 - With a DVD recorder, you can record any analog source except DVR.
 - When you select DVD ANALOG 6CH mode, only sound from the front left and right channels is recorded.



Preset tuning

Presetting stations

■ Auto presetting

1 Set the channel reception to FM 87.9 MHz or AM 530 kHz.


Preset channels that are automatically assigned by this unit are:

FM: 1 to 30

AM: 21 to 30

Preset the FM stations first. If the AM stations are preset before the FM stations, they will be erased when the FM stations are preset.

2 Enter the MULTI CONTROL.

 (→page 22 “Basic operations with the MULTI CONTROL”)

3 Select “TUNER” and press [ENTER].

4 Select “AUTO MEM” (AUTO MEMORY) and press [ENTER].

5 Select “START” and press [ENTER].

- Select “CANCEL” to cancel.
- During automatic presetting, the memory indicator (**M**) flashes and the frequency scrolls. The memory indicator and channel numbers are displayed for a second when a station is preset.
- The last station to be preset is displayed when presetting finishes.
- Frequencies may not preset correctly when broadcast waves are too strong or too weak. In such cases, carry out presetting manually.

**START,
CANCEL**

■ Manual presetting

1 Tune to the station you want to preset. (→page 22)

2 Enter the MULTI CONTROL.



(→page 22 “Basic operations with the MULTI CONTROL”)

3 Select “TUNER” and press [ENTER].

4 Select “MEMORY” and press [ENTER].

5 Select a channel number and press [ENTER].

“STORED” is displayed.

- To continue presetting, press [TUNE ∨ or ∧] to tune another station from step 1.

6 Press [MULTI CONTROL, CANCEL] 2 times to select “EXIT” and press [ENTER].

- Even if the AC power supply cord is disconnected from the household AC outlet, the stations remain in the memory for approximately two weeks.
- FM stations can also be preset in the MONO mode. (→below)

Listening to preset stations

■ On the remote control

- Select the channel



- Press the numbered buttons to select the channel



To select a two digit number

e.g. 21: [≥ 10, ENTER] → [2] → [1]

■ On the main unit

1 Press.



2 Select the channel.



After 5 seconds, the display will change from the channel number to the frequency.

- Hold down the button to change channels faster.

Reducing excessive noise

Select if noise is excessive during radio reception.

Preparation: Enter the MULTI CONTROL. (→page 22 “Basic operations with the MULTI CONTROL”)

■ During FM stereo reception

You can improve FM reception by switching reception to monaural.

1 Select “TUNER” and press [ENTER].

2 Select “FM MODE” and press [ENTER].

3 Select “MONO” and press [ENTER].

- Select “AUTO” to cancel.

**AUTO,
MONO**

4 Press [MULTI CONTROL, CANCEL] 2 times to select “EXIT” and press [ENTER].

■ During AM reception

When there is a lot of noise interference with an AM broadcast, try switching to this mode.

1 Select “OPTION” and press [ENTER].

2 Select “B PROOF” (BEAT PROOF) and press [ENTER].

3 Select “MODE A” or “MODE B” and press [ENTER].

4 Press [MULTI CONTROL, CANCEL] 2 times to select “EXIT” and press [ENTER].

Remote control mode

Other products may respond to this unit's remote control. If this happens, change the remote control mode.

Change the remote control mode on the main unit and the remote control.

Before use



-On the main unit-

Connections



-On the remote control-

Settings

Basic Operations

Multi control menus and factory settings

Operations

Reference

Specifications (IHF'78)

■ AMPLIFIER SECTION

Rated minimum sine wave RMS power output	
20 Hz-20 kHz both channels driven	100 W per channel (6 Ω)
0.09 % total harmonic distortion	100 W per channel (6 Ω)
1 kHz continuous power output both channels driven	105 W per channel (6 Ω)
0.09 % total harmonic distortion	105 W per channel (6 Ω)
Total harmonic distortion	
rated power at 20 Hz-20 kHz	0.09 % (6 Ω)
Power bandwidth	
both channels driven, -3 dB	4 Hz-88 kHz (6 Ω, 0.9 %)
Power output each channel driven	
0.9 % total harmonic distortion at 1kHz	
Front (L/R)	100 W (6 Ω)
Center	100 W (6 Ω)
Surround (L/R)	100 W (6 Ω)
Surround back (L/R)	100 W (6 Ω)
Load impedance	
Front (L/R)	
A or B	6-8 Ω
A and B	6-8 Ω
BI-WIRE	6-8 Ω
Center	6-8 Ω
Surround (L/R)	6-8 Ω
Surround back (L/R)	6-8 Ω
Frequency response	
CD, TAPE, TV, DVD, DVD RECORDER, VCR1, VCR2	4 Hz-88 kHz, ±3 dB
DVD 6CH	4 Hz-44 kHz, ±3 dB
Input sensitivity	
CD, TAPE, TV, DVD, DVD RECORDER, VCR1, VCR2	27 mV (200 mV, IHF '66)
Input impedance	
CD, TAPE, TV, DVD, DVD RECORDER, VCR1, VCR2	22 kΩ
S/N (IHF A)	
CD, TV, DVD, DVD RECORDER (Digital Input)	85 dB (103 dB, IHF '66)
Tone controls	
BASS	50 Hz, +10 to -10 dB
TREBLE	20 kHz, +10 to -10 dB
Subwoofer frequency response (-6 dB)	7 Hz-200 Hz

Digital input (OPTICAL)	2
(COAXIAL)	2

■ FM TUNER SECTION

Frequency range	87.9-107.9 MHz
Sensitivity	11.2 dBf (2 μV, IHF '58)
50 dB quieting sensitivity	
MONO	18.3 dBf (4.5 μV, IHF '58)
STEREO	38.3 dBf (45 μV, IHF '58)
Total harmonic distortion	
MONO	0.2 %
STEREO	0.3 %

S/N	
MONO	73 dB
STEREO	67 dB
Frequency response	20 Hz-15 kHz, +1 dB, -2 dB
Alternate channel selectivity	65 dB
Capture ratio	1.5 dB
Image rejection at 98 MHz	40 dB
Spurious response rejection at 98 MHz	75 dB
AM suppression	50 dB
Stereo separation	
1 kHz	40 dB
10 kHz	30 dB
Antenna terminal	75 Ω (unbalanced)

■ AM TUNER SECTION

Frequency range	530-1710 kHz
Sensitivity	20 μV, 330 μV/m
Selectivity	55 dB
IF rejection at 1000 kHz	50 dB

■ VIDEO SECTION

Output voltage at 1 V input (unbalanced)	1±0.1 Vp-p
Maximum input voltage	1.5 Vp-p
Input/output impedance	75 Ω
S-Video	Input TV, DVD, DVD RECORDER
	Output TV MONITOR
Component Video	Input TV, DVD, DVD RECORDER
	Output TV MONITOR

■ GENERAL

Power supply	AC 120 V, 60 Hz
Power consumption	135 W
Dimensions (W x H x D)	430 mm x 107.5 mm x 394 mm (16-15/16" x 4-7/32" x 15-1/2")
Mass	4.6 kg (10.1 lb.)
■ DIN POWER	
1 kHz, T. H. D 1 %	2 x 100 W (6 Ω)

Power consumption in standby mode:	0.2 W
------------------------------------	-------

Notes:

- Specifications are subject to change without notice. Mass and dimensions are approximate.
- Total harmonic distortion is measured by the digital spectrum analyzer.

Product Service

- Damage requiring service** — The unit should be serviced by qualified service personnel if:
 - The AC power supply cord or the plug has been damaged; or
 - Objects or liquids have gotten into the unit; or
 - The unit has been exposed to rain; or
 - The unit does not operate normally or exhibits a marked change in performance; or
 - The unit has been dropped or the cabinet damaged.
- Servicing** — Do not attempt to service the unit beyond that described in these operating instructions. Refer all other servicing to authorized servicing personnel.
- Replacement parts** — When parts need replacing ensure the servicer uses parts specified by the manufacturer or parts that have the same characteristics as the original parts. Unauthorized substitutes may result in fire, electric shock, or other hazards.
- Safety check** — After repairs or service, ask the servicer to perform safety checks to confirm that the unit is in proper working condition.

Product information

For product information or assistance with product operation: In the U.S.A., refer to "Customer Services Directory" on page 26. In Canada, contact the Panasonic Canada Inc. Customer Care Centre at 905-624-5505, or visit the website (www.panasonic.ca), or an authorized Servicentre closest to you

Manufactured under license from Dolby Laboratories. "Dolby", "Pro Logic" and the double-D symbol are trademarks of Dolby Laboratories.

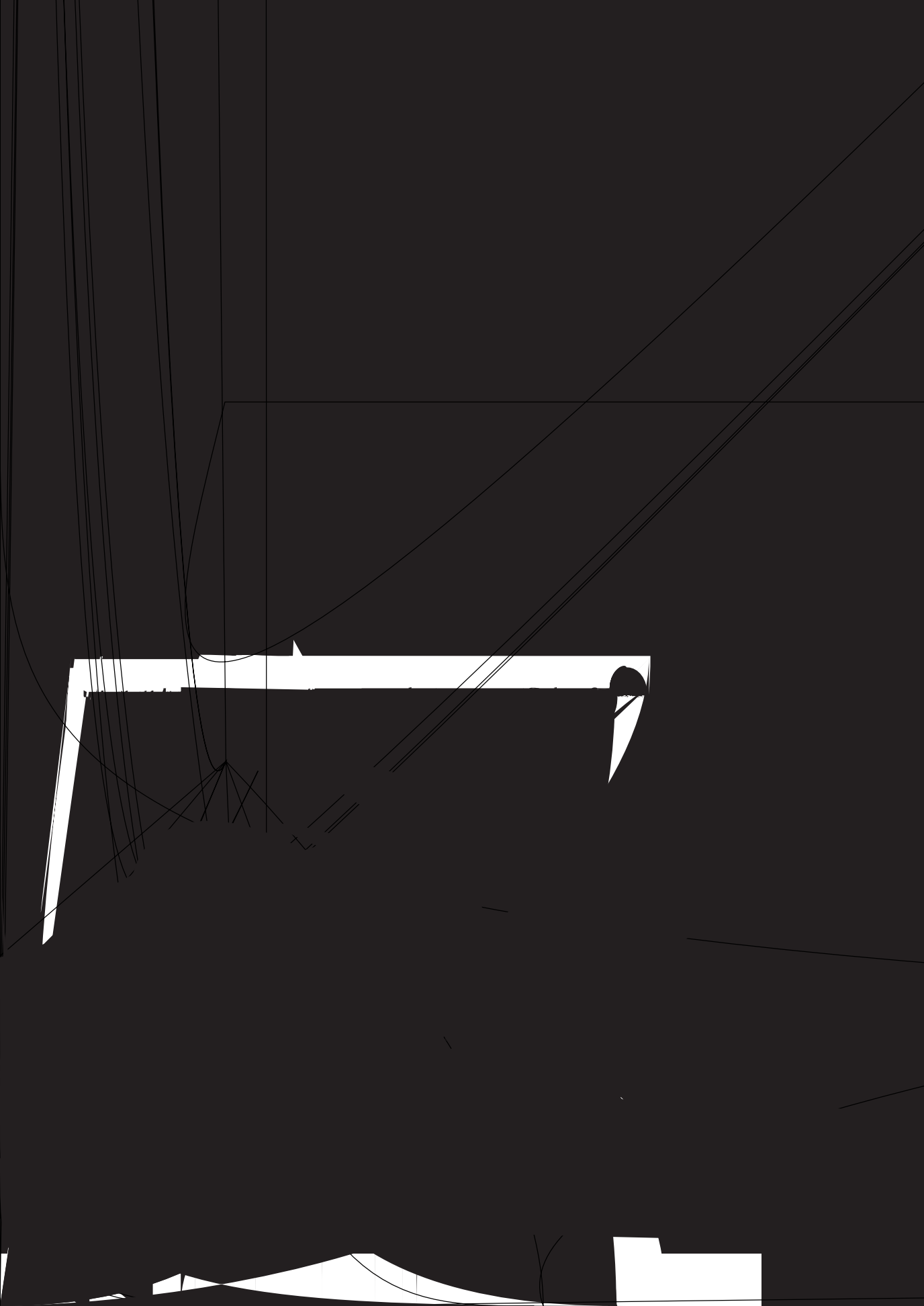
"DTS", "DTS-ES", "Neo:6" and "DTS 96/24" are trademarks of Digital Theater Systems, Inc.

User memo:

DATE OF PURCHASE _____
DEALER NAME _____
DEALER ADDRESS _____
TELEPHONE NUMBER _____

The model number and serial number of this product can be found on either the back or the bottom of the unit. Please note them in the space provided below and keep for future reference.

MODEL NUMBER _____ SA-XR55 _____
SERIAL NUMBER _____



Warranty (Canada)

Panasonic Canada Inc.

5770 Ambler Drive, Mississauga, Ontario L4W 2T3

PANASONIC/TECHNICS PRODUCT—LIMITED WARRANTY

Panasonic Canada Inc. warrants this product to be free from defects in material and workmanship and agrees to remedy any such defect, or at its option, replace the product for a period as stated below from the date of original purchase.

Technics Audio Product
Panasonic Audio & DVD Product
Accessories including rechargeable batteries

One (1) year, parts and labour
One (1) year, parts and labour
Ninety (90) days

LIMITATIONS AND EXCLUSIONS

This warranty does not apply to products purchased outside Canada or to any product which has been improperly installed, subjected to usage for which the product was not designed, misused or abused, damaged during shipping, or which has been altered or repaired in any way that affects the reliability or detracts from the performance, nor does it cover any product which is used commercially. Dry cell batteries are also excluded from coverage under this warranty.

This warranty is extended to the original end user purchaser only. A purchase receipt or other proof of date of original purchase is required before warranty service is performed.

THIS EXPRESS, LIMITED WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

IN NO EVENT WILL PANASONIC CANADA INC. BE LIABLE FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES.

In certain instances, some jurisdictions do not allow the exclusion or limitation of incidental or consequential damages, or the exclusion of implied warranties, so the above limitations and exclusions may not be applicable.

WARRANTY SERVICE

For product operation and information assistance, please contact your Dealer or our Customer Care Centre at: Telephone #: (905) 624-5505 Fax #: (905) 238-2360 Web: www.panasonic.ca

For product repairs, please contact one of the following:

Your Dealer who will inform you of an authorized Servicentre nearest you.

Our Customer Care Centre at (905) 624-5505 or www.panasonic.ca

A Panasonic Factory Servicentre listed below:

<u>Richmond, British Columbia</u>	<u>Calgary, Alberta</u>	<u>Mississauga, Ontario</u>	<u>Lachine, Québec</u>
Panasonic Canada Inc. 12111 Riverside Way Richmond, BC V6W 1K8 Tel: (604) 278-4211 Fax: (604) 278-5627	Panasonic Canada Inc. 6835-8 th St. N. E. Calgary, AB T2E 7H7 Tel: (403) 295-3955 Fax: (403) 274-5493	Panasonic Canada Inc. 5770 Ambler Dr. Mississauga, ON L4W 2T3 Tel: (905) 624-8447 Fax: (905) 238-2418	Panasonic Canada Inc. 3075, rue Louis A. Amos Lachine, QC H8T 1C4 Tel: (514) 633-8684 Fax: (514) 633-8020

IF YOU SHIP THE PRODUCT TO A SERVICENTRE

Carefully pack and send prepaid, adequately insured and preferably in the original carton.

Include details of the defect claimed, and proof of date of original purchase.

Maintenance

To clean this unit, wipe with a soft, dry cloth.

- Never use alcohol, paint thinner or benzine to clean this unit.
- Before using chemically treated cloth, carefully read the instructions that came with it.

Troubleshooting guide

Before requesting service, make the following checks. If you are in doubt about some of the check points, or if the remedies indicated in the chart do not solve the problem, refer to the "Customer Services Directory" on page 26 if you reside in the U.S.A., or refer to the "Product information" on page 25 if you reside in Canada.

■ Common problems

		Pages
No power.	• Ensure the AC power supply cord is connected.	8
No sound. Sound is distorted.	• Turn the volume up.	14
	• Check connections to speakers and other equipment.	4 to 11
	• Turn on the speakers.	14
	• Select the correct source.	14
	• Change D-INPUT setting to suit the type of connection you have made.	13
	• Check that the digital signals can be decoded by this unit.	15
	• Turn the muting off.	20
	• Turn PCM FIX off.	13
	• Recording of some DVD-Audio may not be possible due to copyright protection.	-
Sound stops. "OVERLOAD" appears on the display for about a second, and the unit turns off.	• Determine and correct the cause, then turn the unit on. Causes include:	
	- Shorting (bare wires touching) of positive and negative speaker wires.	7
	- Using speakers with an impedance lower than that rated for this unit.	7, 8, 25
	- Straining of the speakers through excessive volume or power.	-
	- Using the unit in a hot environment without proper ventilation.	-
	Consult your dealer if the problem occurs again after switching the unit on.	
"F76" appears on the display and the unit turns off.	• Turn the unit off, disconnect the AC power supply cord, and consult your dealer.	-
"F70" appears on the display.	• Turn the unit off, disconnect the AC power supply cord, and consult your dealer.	-
"U12" appears on the display.	• Match the "Remote control mode" on the main unit and the remote control.	24
Display is dim.	• Cancel "DIMMER".	19, 20
Clicking sound heard during play.	• Depending on the input signal when playing DVD etc., the DUAL AMP function changes automatically. A clicking sound is heard when it changes. This does not mean a problem with the unit.	15

■ Surround effects

		Pages
Sound is not heard from the center, surround or subwoofer speakers.	• Ensure the speaker settings for your speakers are correct.	12, 21
	• The source may be stereo. Turn Dolby Pro Logic IIx, DTS NEO:6 or SFC on.	15
	• If the FRONT speakers are set to LARGE: - When you play an analog or PCM source in stereo, sound is output from the subwoofer. However when you play a Dolby Digital or DTS 2-channel source in stereo, only the LFE (low frequency effects channel) signal from the source is output from the subwoofer.	21
Sound is not heard from the surround back speaker.	• Ensure the speaker settings for your speakers are correct. • Turn Dolby Pro Logic IIx, DTS NEO:6 or SFC on.	12, 21 15
Cannot use Dolby Pro Logic IIx, DTS NEO:6 or SFC.	• Turn DVD ANALOG 6CH off. • You cannot use Dolby Pro Logic IIx, DTS NEO:6 or SFC when input is PCM with sampling frequencies of 192 or 176.4 (COAXIAL1).	14 -
There is no DTS audio output. There is audio output, but the DTS decoder indicator is not lit.	• Set the DTS Digital Audio Output setting on the DVD player or DVD recorder to "Bitstream".	-
Sound is distorted when using the Sound Field Control (SFC).	• Depending on the input source, sound may be distorted if you increase the SFC speaker level or effect. If this happens, decrease the SFC speaker level or effect.	18

■ Radio

		Pages
The radio cannot be tuned in or there is a lot of noise and interference.	• Connect the appropriate antenna. (You may need an outdoor antenna or one with more elements.)	11
	• Adjust the position of the FM or AM antenna.	11
	• Reduce the treble.	19
	• Turn off nearby televisions, video decks, DVD players, and satellite receivers.	-
	• Separate the antenna from other cables, cords, and appliances.	-
There is a lot of noise when listening to AM.	• Try changing the BEAT PROOF mode.	23

■ Remote control

		Pages
The remote control doesn't work.	• Replace the batteries if they are worn.	11
Other products respond to the remote control.	• Change this unit's remote control mode to "REM2".	24

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